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1678 7590 10/29/2010 MARSHALL & MELHORN, LLC FOUR SEAGATE - EIGHTH FLOOR TOLEDO, OH 43604			EXAMINER CHANG, JUNGWON	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOHN C. DUTE, LAURENCE A. BOYD II,  
and DONALD P. WOOLWORTH

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Appeal 2009-006101  
Application 09/915,188  
Technology Center 2400

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Before KENNETH W. HAIRSTON, ST. JOHN COURTENAY III, and  
ELENI MANTIS MERCADER, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304 or for filing a request for rehearing as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 86-90. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

## INVENTION

Appellants' claimed invention is directed to "interfacing a process or machine controller with a sensor monitoring a condition within the process or machine or an actuator acting to modify the process or machine with a controller receiving inputs from the sensor or sending commands to the actuator." *See* Spec. 4:4-7.

Claim 86, reproduced below, is representative of the subject matter on appeal:

86. A comprehensive interface circuit for simultaneously sensing input devices and output devices, comprising:

a first physical circuit package having a first electrical terminal, a second electrical terminal and a plurality of mode circuits disposed thereon, wherein said plurality [of] mode circuits can accomplish digital input, digital output, analog input, and analog output, said first physical circuit package being electrically connected directly, exclusively, and physically to a single sensor or a single actuator, but not both simultaneously, via only said first electrical terminal and said second electrical terminal of said first physical circuit package, and said first electrical terminal and said second electrical terminal being capable of electrical communication with each of said plurality of mode circuits;

a second physical circuit package having a first electrical terminal, a second electrical terminal and a plurality of mode circuits disposed thereon, wherein said plurality [of] mode circuits can accomplish digital input, digital output, analog input, and analog output, said second physical circuit package being electrically connected directly, exclusively, and physically to another single sensor or another single actuator, but not both simultaneously, via only said first electrical terminal and said second electrical terminal of said

second physical circuit package, and said first electrical terminal and said second electrical terminal being capable of electrical communication with each of said plurality of mode circuits; and

a controller that is external to said first physical circuit package and said second physical circuit package, said controller being capable of simultaneously receiving a condition from each sensor and being capable of simultaneously sending commands to each actuator.

### THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

McLeish	US 5,014,238	May 7, 1991
Sitte	US 5,469,150	Nov. 21, 1995

The following rejections are before us for review:<sup>2</sup>

1. The Examiner rejected claims 86-90 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which Appellants regard as their invention.

2. The Examiner rejected claims 86-90 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

3. The Examiner rejected claims 86-90 under 35 U.S.C. § 103(a) as being unpatentable over McLeish in view of Sitte.

### ISSUES

The pivotal issues are:

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<sup>2</sup> The objections to the drawings and the Specification (Ans. 5) are directed to petitionable rather than appealable matter. *See* Manual of Patent Examining Procedure (MPEP) § 1002 and 1201. Accordingly, we will not review these issues.

(1) whether claims 86-90 fail to particularly point out and distinctly claim the subject matter which Appellants regard as their invention;

(2) whether claims 86-90 comply with the written description requirement; and

(3) whether the combination of McLeish in view of Sitte teaches the limitation of “simultaneously receiving a condition from each sensor and being capable of simultaneously sending commands to each actuator” as recited in claim 86.

### PRINCIPLES OF LAW

The claims, of course, do not stand alone. Rather, they are part of “a fully integrated written instrument” consisting principally of a specification that concludes with the claims. For that reason, claims “must be read in view of the specification, of which they are a part.” . . . [T]he specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.”

*Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (citations omitted).

### ANALYSIS

*Analysis regarding the rejection of claims 86-90 under 35 U.S.C. § 112, second paragraph.*

Appellants argue (App. Br. 15-16) that the claimed invention of claims 86-90, contrary to the Examiner’s assertions (Ans. 12), particularly points out and distinctly claims a controller capable of “simultaneously” receiving a condition from each sensor and “simultaneously” sending commands to each actuator (citing Spec. 2:4-6). The Examiner asserts (Ans.

5) that the Specification recites “sequentially” (citing Spec. 14:25-27) and thus, the term “simultaneously” is a relative term that renders the claim indefinite.

At the outset, we note that claim 86 recites “*a controller . . . external to said first physical circuit package*” which is “capable of *simultaneously* receiving a condition from each sensor and . . . sending commands to each actuator” (emphasis added). We turn to the Specification to determine the meaning of the terms “controller” and “simultaneously” as it is the single best guide to the meaning of disputed terms. *See Phillips*, 415 F.3d at 1315.

Appellants’ Figure 1 shows an external controller 14 to the physical package 15 and an internal point controller 12 (Fig. 1). Appellants re-affirm (App. Br. 15-16) that the claims correspond to their disclosure of a controller (i.e., external controller 14) which is in electrical communication with individual electronic interfaces for each sensor 70 and each actuator 72 (citing Spec. 2:4-6), and which simultaneously senses inputs and actuates outputs (citing Spec. 3:14-15; Fig. 1).

Thus, we agree with Appellants that the claims are definite and distinctly claim Appellants’ invention because Appellants’ claim 86 refers to the external controller 14, rather than the internal controller 12, for simultaneously receiving conditions and sending commands.

Appellants further clarify (App. Br. 16) that the term “sequentially” as it appears in the Specification (Spec. 14:25-27) refers to the *internal control* of the mode circuit 16. Appellants’ Specification refers to the internal point controller 12 for the sequential control of Modes 1-7 (Spec. 14:13-27).

Accordingly, we will reverse the Examiner’s rejection of claims 86-90 for failure to particularly point out and distinctly claim a controller capable

of “simultaneously” receiving a condition from each sensor and “simultaneously” sending commands to each actuator under 35 U.S.C. § 112, second paragraph.

*Analysis regarding the rejection of claims 86-90 under 35 U.S.C. § 112, first paragraph.*

Appellants argue (App. Br. 11-12, 7-8) that, contrary to the Examiner’s assertions (Ans. 11), the Specification does disclose two physical circuit packages in simultaneous communication with a single controller and simultaneous sensing of inputs and outputs.

More particularly, Appellants’ Specification describes “only two terminals for the connection of sensor *or* actuator” (Spec. 4:16-17 (emphasis added)); “a . . . controller with a sensor monitoring . . . or an actuator acting” (Spec. 4:4-6); and “an interface that permits simultaneous sensing [of] inputs and outputs” (Spec. 3:14-15). Thus, we agree with Appellants (App. Br. 8-12) that there would have to be multiple individual physical circuit packages 15 for simultaneous sensing of inputs and outputs. In other words, there would have to be at least two individual circuit packages 15 because each package would be connected through terminals T1/T2 (Fig. 1) to either a sensor or an actuator. By doing so the external controller 14 would *simultaneously* sense the input from the sensor of one package and an output from the actuator of another package. Thus, necessarily controller 14 is connected to multiple packages 15 to simultaneously connect each sensor 70 or each actuator of each package to the external controller 14. We further note that this reasoning based on Appellants’ Specification is in agreement with the claimed language of each physical package being “electrically connected directly, exclusively, and physically to a single sensor or a single actuator, but not both simultaneously” as recited in claim 86.

Accordingly, we will also reverse the Examiner's rejection of claims 86-90 under § 112, first paragraph.

*Analysis regarding the rejection of claims 86-90 under 35 U.S.C. § 103(a).*

We will reverse the Examiner's rejection of claims 86-90 *pro forma* because the Examiner's rejection (Ans. 14) is based on the contention that the term "simultaneously" is indefinite and thereby includes the term "sequentially" upon which the art rejection is based.

Accordingly, we will also reverse the Examiner's rejection of claims 86-90 under 35 U.S.C. § 103(a) because we found that the term "simultaneously" is definite.

## CONCLUSIONS

(1) Claims 86-90 particularly point out and distinctly claim the subject matter which Appellants regard as their invention;

(2) claims 86-90 comply with the written description requirement; and

(3) the combination of McLeish in view of Sitte does not teach the limitation of "simultaneously receiving a condition from each sensor and being capable of simultaneously sending commands to each actuator" as recited in claim 86 because the rejection is based on the contention that the term "simultaneously" includes the term "sequentially."

## ORDER

The decision of the Examiner rejecting claims 86-90 under 35 U.S.C. § 112, first and second paragraphs, and under 35 U.S.C. § 103(a) is reversed.

## REVERSED



Appeal 2009-006101  
Application 09/915,188

babc

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